

Division 3. Air Resources Board

Chapter 1. Motor Vehicle Pollution Control Devices

Article 2. Approval of Motor Vehicle Pollution Control Devices (New Vehicles)

§ 1956.9. Optional Exhaust Emission Standards for Retrofitted Heavy-Duty Engines.

1973 and later model-year heavy-duty engines that have been retrofitted to produce emissions less than the original certification emission level may be certified to optional emission standards as follows:

(a)(1) Total Hydrocarbons

$(X - n \cdot 0.2)$ grams per brake horsepower-hour

where $X = 0.75 \cdot$ new engine total hydrocarbon standard for the engine's model year, with the further requirement that X is rounded down to the nearest lower 0.2 grams per brake horsepower-hour increment; and where n is an integer such that $n \cdot 0.2$ is greater than or equal to zero. For diesel engines, $X = 0.75 \cdot$ original emission certification value for the engine's model year. For engines originally certified to a combined hydrocarbon plus oxides of nitrogen standard, $X = 0.75 \cdot$ original engine certification standard pro-rated by the hydrocarbon portion of the original emission certification level. If the original certification levels are not available, the hydrocarbon baseline standard shall be prorated by the hydrocarbon and oxides of nitrogen values of the next later model year with separate hydrocarbon and oxides of nitrogen standards.

(a)(2) Non-methane Hydrocarbons

For engines originally certified to an optional non-methane hydrocarbon standard,

$(X - n \cdot 0.2)$ grams per brake horsepower-hour

where $X = 0.75 \cdot$ new engine non-methane hydrocarbon standard for the engine's model year, with the further requirement that X is rounded down to the nearest lower 0.2 grams per brake horsepower-hour increment; and where n is an integer such that $n \cdot 0.2$ is greater than or equal to zero. For diesel engines, $X = 0.75 \cdot$ original emission certification value for the engine's model year.

(b) Carbon Monoxide

$(X - n \cdot 5.0)$ grams per brake horsepower-hour

where $X = 0.75 \cdot$ new engine carbon monoxide standard for the engine's model year, with the further requirement that X is rounded down to the nearest lower 5 grams per brake horsepower-hour increment; and where n is an integer such that $n \cdot 5.0$ is greater than or equal to zero. For diesel engines, $X = 0.75 \cdot$ original emission certification value for the engine's model year.

(c) Oxides of Nitrogen

$(X - n \cdot 0.5)$ grams per brake horsepower-hour

where $X = 0.75 \cdot$ new engine oxides of nitrogen standard for the engine's model year, with the further requirement that X is rounded down to the nearest lower 0.5 grams per brake horsepower-hour increment; and where n is an integer such that $n \cdot 0.5$ is greater than or equal to zero. For engines originally certified to a combined hydrocarbon plus oxides of nitrogen standard, $X = 0.75 \cdot$ original engine certification standard, pro-rated by the oxides of nitrogen portion of the original emission certification level. If the original emission certification levels are not available, the oxides of nitrogen baseline standard shall be pro-rated by the hydrocarbon and oxides of nitrogen values of the next later model year with separate hydrocarbon and oxides of nitrogen standards.

(d) Particulate Matter

$(X - n \cdot 0.05)$ grams per brake horsepower-hour

where $X = 0.75 \cdot$ new diesel engine particulate matter standard for the engine's model year, with the further requirement that X is rounded down to the nearest lower 0.05 grams per brake horsepower-hour increment; and where n is an integer such that $n \cdot 0.05$ is greater than or equal to zero. For diesel engines that were not originally certified to a particulate matter emission standard, $X = 0.75 \cdot 0.6$ grams per brake horsepower-hour. Gasoline engines may not be certified to an optional exhaust emission standard for particulate matter.

(e) 1972 and earlier model year engines may be certified to credit standards as described in (a)(1), (b), (c), and (d) using 1973 model year new engine emission standards as the basis for calculating "X."

(f) The test procedures for determining compliance with an optional standard shall be the test procedure used to originally certify the engine. To certify to an optional emission standard, a retrofitted engine must meet all of the requirements of "California Certification and Installation Procedures for Alternative Fuel Retrofit Systems for Motor Vehicles Certified for 1994 and Subsequent Model Years and for all Model Year Motor Vehicle Retrofit Systems Certified for Emissions Reduction Credit," adopted March 11, 1993, as amended November 21, 1995, which is incorporated by reference herein.

NOTE: Authority cited: Sections 43701 (b) and (c), Health and Safety Code. Reference: Sections 39002, 39003, 43000, 43004, 43006, 43008, 43013, and 43108, Health and Safety Code; and Sections 27156, 38391 and 38395, Vehicle Code.

Board Administration and Regulatory Coordination Unit

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REFERENCE